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PAG

Appl. No. 10/754,178
Reply to Advisory Action of June 8, 2006

Attorney Docket No. 2003-0250 / 24061.144
Customer No. 42717

REMARKS

Claims 1-32 are present in the application. Of these, Claims 1-26 are allowed. The remarks below relate to Claims 27-32 and, in view of these remarks, Applicants respectfully request reconsideration.

Second Paragraph of 35 U.S.C. §112

Noted with appreciation is the indication in the Advisory Action that the Examiner has withdrawn the rejection of Claims 27-32 under the second paragraph of 35 U.S.C. §112.

Independent Claim 27 is Not Anticipated Under §102

Independent Claim 27 stands rejected under 35 U.S.C. §102 as anticipated by Vahedi U.S. Published Patent Application No. 2003/0148224. This ground of rejection is respectfully traversed. Applicants previously argued that Claim 27 recites "etching the material layer while protecting the photoresist layer from etching". In reply, the continuation page of the Advisory Action asserts that:

... the photoresist [in Vahedi] is protected but not completely protected. Figure 4 [of Vahedi] shows some photoresist (18a-d) over the material layer (15a-d) located below the photoresist. Furthermore paragraph 0079 discloses how the polymer film [24] aids in the preservation of the resist budget.

However, this assertion is not consistent with what is actually disclosed in Vahedi. In particular, the quoted limitation from Applicants' Claim 27 is expressly directed to something that happens "during etching of a material layer located below the photoresist". In Vahedi, Figures 3C and 4 show a material layer 15 below a photoresist 18a-18d. Figure 3C shows this structure at the start of a procedure 32 that etches the material layer 15, and Figure 4 shows this structure at the end of the etching 32 of the material layer 15. Contrary to the assertion in the Advisory Action, when Vahedi is carrying out the etching 32 of the material layer 15, there is not any protection at

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all for the photoresist 18a-18d. As a result, almost all of the photoresist 18a-18d is etched away by the etching procedure 32 (as clearly evident by comparing the photoresist shown at 18a-18d in Figure 3C to the photoresist shown at 18a-18d in Figure 4). Stated differently, if there was protection for the photoresist 18a-18d during the procedure 32 for etching the material 15, the vast majority of the photoresist 18a-18d would not be etched away by the etching procedure 32. Further, the Examiner's references to paragraph 0079 and the polymer film 24 are not appropriate, because the polymer film 24 is not present during the relevant time period (i.e. while the material layer 15 is being etched at 32), and because paragraph 0079 is discussing an entirely different etching step that occurs at an earlier point in the device fabrication (see the etching indicated at 22, 22', 20 and 20' in Figures 3A and 3B). In contrast, Applicants' Claim 27 expressly recites "etching the material layer while protecting the photoresist layer from etching". Since Vahedi very clearly does not do this, Vahedi does not disclose each and every element that is recited in Claim 27. Accordingly, Vahedi does not anticipate Claim 27 under §102 (see MPEP §2131). Claim 27 is therefore believed to be allowable, and notice to that effect is respectfully requested.

Dependent Claims

Claims 28-32 each depend directly or indirectly from Claim 27, and are also believed to be distinct from the art of record, for example for the same reasons discussed above with respect to Claim 27.

Conclusion

Based on the foregoing, it is respectfully submitted that all of the pending claims are fully allowable, and favorable reconsideration of this application is therefore respectfully requested. If the Examiner believes that examination of the present application may be advanced in any way by a telephone conference, the Examiner is invited to telephone the undersigned attorney at 972-739-8647.

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Although Applicants believe that no fee is due in association with the filing of this paper, the Commissioner is hereby authorized to charge any fee required by this paper, or to credit any overpayment, to Deposit Account No. 08-1394 of Haynes and Boone LLP.

Respectfully submitted,



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Enclosures: None

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